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## Claims:

1. A method for removing target material from a  
5 substrate, the method comprising directing a supply of  
particulate material toward a target zone of target  
material present on the substrate and directing  
radiant optical energy toward the target zone, the  
radiant optical energy interacting with the target  
10 material and the particulate material promoting  
removal of target material from the substrate.
2. A method according to claim 1, wherein the radiant  
optical energy is light energy.
- 15 3. A method according to claim 2, wherein the light  
energy includes wavelengths in the visible range of  
the spectrum.
- 20 4. A method according to claim 3, wherein the light  
energy is limited to wavelengths in the visible range  
of the spectrum.
- 25 5. A method according to any preceding claim, wherein the  
interaction between the radiant optical energy and the  
particulate material is a thermal interaction.
- 30 6. A method according to any preceding claim, wherein the  
interaction between the radiant optical energy and the  
target material is a thermal interaction.

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7. A method according to any preceding claim, wherein the interaction between the radiant optical energy and the target material is an interaction effecting ablation or pyrolysis of the target material.
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8. A method according to any preceding claim, wherein the interaction between the radiant optical energy and the particulate material results in a blast or shock medium acting at the target zone.
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9. A method according to any preceding claim, wherein the interaction between the radiant optical energy and the particulate material result in the evolution of a gas having properties providing a physical or chemical interaction with material at the target zone.
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10. A method according to any preceding claim, wherein the interaction between the radiant optical energy and the particulate material is a sublimation interaction.
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11. A method according to any preceding claim in which Carbon dioxide is evolved resultant from the interaction of the radiant optical energy with the particulate material.
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12. A method according to any preceding claim, wherein the particulate material is a material in solid state at ambient temperature.
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13. A method according to any preceding claim, wherein the radiant optical energy is delivered as a pulse of

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optical energy.

14. A method according to claim 13, wherein the radiant optical energy is delivered as a series of pulses.
- 5 15. A method according to any preceding claim, wherein the particulate material is directed across the target zone in a direction transverse to the direction of the directed radiant optical energy.
- 10 16. A method according to any preceding claim, wherein the particulate material is directed to the target zone at times when the radiant optical energy is also directed to the target zone.
- 15 17. A method according to claim 16, wherein the particulate material is also directed to the target zone when radiant optical energy is not directed to the target zone.
- 20 18. A method according to any preceding claim wherein the particulate material comprises bicarbonate of soda in particulate or pellet form.
- 25 19. A method according to any preceding claim, wherein the particulate material is delivered entrained in a transport gas.
- 30 20. A method according to claim 19, wherein the transport gas is pressurised air.

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21. A method according to any preceding claim, wherein the radiant optical energy is delivered by a flashlamp delivery system.
- 5 22. A method according to any preceding claim, wherein the radiant optical energy is delivered in pulse form, the energy density of the energy at the target zone being substantially in the range  $5\text{J}/\text{cm}^2$  -  $150\text{J}/\text{cm}^2$ .
- 10 23. A method according to any preceding claim, wherein the spectrum of the radiant optical energy is variable in a controlled manner.
- 15 24. A method according to any preceding claim, wherein the particulate material and the radiant optical energy is delivered via a combined delivery unit.
- 20 25. A method according to claim 24, wherein the combined delivery unit is portable and/or hand held manipulatable.
- 25 26. A method of removing graffiti or other unwanted material from an architectural or vehicle surface, the method comprising directing a supply of particulate material toward a target zone of the substrate, the particulate material being in solid phase at ambient temperature, and directing radiant optical energy toward the target zone, the radiant optical energy:
- 30 i) interacting with the target material in a thermal interaction resulting in ablation or

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pyrolysis of at least some of the target material; and,

- 5           ii) interacting with the particulate material in a sublimation reaction evolving a gas having a blast effect at the target zone.

27. Apparatus for removing target material from a substrate, the apparatus comprising:

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a particulate supply arrangement configured to direct a supply of particulate material toward a target zone of the substrate; and,

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a radiant optical energy delivery system configured to direct radiant optical energy toward the target zone;

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the radiant optical energy interacting with the target material and the particulate material promoting removal of target material from the substrate.

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28. Apparatus according to claim 27, wherein the radiant optical energy delivery system comprises flashlamp system.

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29. Apparatus according to claim 27 or claim 28, wherein the apparatus is controlled to limit the pulse rate and/or duration of a light pulse event.

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30. Apparatus according to any of claims 27 to 29, wherein the optical energy delivery system includes a hand-held light delivery unit arranged to be positioned relative to the target zone manually by user.
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31. Apparatus according to any of claims 27 to 30, further including an exhaust arrangement facilitating removal of soot/pyrolysed material and the particulate material.
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32. Apparatus according to any of claims 27 to 31, wherein the apparatus is controllable to deliver the light energy in the form of a pulse of light (pulse event).
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33. Apparatus according to claim 32, wherein the apparatus includes means to adjust and/or limit the pulse repetition rate of successive light pulse event and/or the duration of a light pulse event, and/or the intensity of the light delivered; and/or the spectrum or spectrum range of the radiant optical energy.
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34. Apparatus according to any of claims 27 to 33, wherein the optical energy delivery system includes a manually actuatable trigger for initiating a light pulse when the delivery means is positioned to the users satisfaction.
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